

What Is Claimed Is:

[c1] An insert for footwear comprising:
a single steel sheet;
a cushion layer, shaped to the contour of the bottom of a foot and including orthotic supports, disposed over the single steel sheet; and
a membrane secured to the cushion layer.

[c2] The insert of claim 1, further comprising a metatarsal support region integrated with the cushion layer.

[c3] The insert of claim 1, wherein the cushion layer is further characterized by a lip portion that extends upwardly and outwardly relative to the single steel sheet.

[c4] The insert of claim 3, wherein the cushion layer includes a bottom perimeter that is approximately equal to a perimeter of the single steel sheet.

[c5] The insert of claim 1, wherein the single steel sheet is of a uniform thickness.

[c6] The insert of claim 1, wherein the single steel sheet is stainless steel and has a thickness between 0.020 and 0.025 inches.

[c7] A three layer insert for footwear comprising:
a bottom layer constructed of a single sheet of stainless steel, the bottom layer having a thickness between 0.020 and 0.025 inches;
an orthotic middle layer, including arch, heel, and metatarsal support regions, the middle layer disposed over the bottom layer; and
a membrane bonded to a top surface of the orthotic middle layer.

[c8] The three layer insert of claim 7, wherein the orthotic middle layer includes an lip that rises up and extends outwardly relative to the bottom layer, and is configured to engage an inner sidewall of a top portion of a shoe.

[c9] The three layer insert of claim 8, wherein the orthotic middle layer is open cell polyurethane.

[c10] An insert for footwear consisting of:
a single stainless steel sheet;

DETAILED DESCRIPTION

a polyurethane layer, shaped to the contour of the bottom of a foot and including orthotic supports, disposed over the single stainless steel sheet; and an air and water permeable membrane secured to the molded polyurethane layer.

- [c11] The insert of claim 10, further comprising a metatarsal support region integrated with the polyurethane layer.
- [c12] The insert of claim 10, wherein the polyurethane layer is further characterized by a lip that extends upwardly and outwardly relative to the single stainless steel sheet.
- [c13] The insert of claim 12, wherein the polyurethane layer includes a bottom perimeter that is approximately equal to a perimeter of the single stainless steel sheet.
- [c14] The insert of claim 10, wherein the single stainless steel sheet is of a uniform thickness.
- [c15] The insert of claim 10, wherein the single stainless steel sheet has a thickness between 0.020 and 0.025 inches.
- [c16] A method for making an orthotic, protective insert for footwear comprising:
 - forming an orthotic layer that supports a foot;
 - attaching a membrane to a top surface of the orthotic layer;
 - trimming the membrane to generally match a perimeter of the top surface of the orthotic layer; and
 - stamping a single metal sheet from stainless spring steel, the metal sheet having a top surface configured to receive a bottom surface of the orthotic layer, and a bottom surface configured to engage a top surface of an interior cavity of the footwear.
- [c17] The method of claim 16, further comprising:
 - applying bonding material to the top surface of the metal sheet; and
 - placing the metal sheet into a mold for the orthotic layer;
 - wherein the step of forming the orthotic layer is performed directly over the

metal sheet.

[c18] The method of claim 17, further comprising etching the top surface of the steel sheet prior to placing the metal sheet into the mold for the orthotic layer.

[c19] The method of claim 18, further comprising deburring the metal sheet prior to placing the metal sheet into a mold for the orthotic layer.

[c20] The method of claim 17, wherein the step of attaching the membrane comprises skinning the membrane layer over the orthotic layer while the insert is within the mold.